



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,253	04/05/2000	Gopal Parupudi	MSI-505US	7033
22801	7590	05/04/2004	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			LY, ANH	
			ART UNIT	PAPER NUMBER
			2172	27

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/544,253

Applicant(s)

PARUPUDI ET AL.

Examiner

Anh Ly

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date #21-#23.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on 04/08/2004 have been fully considered but they are not persuasive.

Applicants argued that, "Draper does not disclose or suggest matter in which EIDs serve as a basis by which attributes can be assigned to goods or services associated with an individual node." (Page 24, the 3<sup>rd</sup> paragraph, Page 26, the 1<sup>st</sup> paragraph, Page 27, the 3<sup>rd</sup> paragraph, Page 28, the 4<sup>th</sup> paragraph, Page 30 the 2<sup>nd</sup> paragraph, Page 32, the 2<sup>nd</sup> paragraph, Page 33, the last paragraph, Page 35, the 2<sup>nd</sup> paragraph, Page 36, the 3<sup>rd</sup> paragraph and Page 37, the 3<sup>rd</sup> paragraph).

Draper et al. of 6,581,062 (hereinafter Draper) discloses the entities/instantiations have an hierarchical relationship to each other and may be logically represented by tree structure having corresponding number of nodes, one for each entity/instantiation and the edges interconnecting the nodes whose represented entities/instantiations are links (see figs. 2a-2b and also figs. 6a -6b; 3, lines 62-67 and col. 6, lines 1-28; and col. 5, lines 38-55). Data or information of each entity is stored in node under structured organization and each entity has its own EID identifiers (see fig. 3 col. 4, lines 28-42), and nodes may be stored data information associated with the entity and its attributes (col. 5, lines 12-36), such as services, goods, or locations (geographical locations): name, home, address, state, zip city (col. 5, lines 38-55 and

Art Unit: 2172

see fig. 6a and fig. 6b); individual nodes comprising an entity identification (EID), that is unique to the node, each node has its own entity such as the node name, its entity is NAME (col. 5, lines 38-55 and col. 6, lines 40-56) and parent nodes and child nodes and their associated children nodes having EIDs that are unique for the associated node (see fig. 2b, entity A has more than one nodes, B, E, G and H, and each node has its own entity identification: col. 4, lines 10-67).

2. Claims 1-8 and 10-64 are pending in this application.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 24-26, 37-29, 48, 54-56, 57, 58-59, and 62-64 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,581,062 issued to Draper et al. (hereinafter Draper).

With respect to claim 1, Draper discloses one or more computer-readable media (mass storage devices: col. 7, lines 60-63 and see fig. 13); and a hierarchical tree structure resident on the media and comprising multiple nodes each of which represent

geographical divisions of the Earth (locations such as name, home, address, state, zip city: col. 5, lines 38-55 and see fig. 6a and fig. 6b), individual nodes comprising an entity identification (EID), that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an individual node (each node has its own entity such as the node name, its entity is NAME: col. 5, lines 38-55 and col. 6, lines 40-56), said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node (see fig. 2b, entity A has more than one nodes, B, E, G and H, and each node has its own entity identification: col. 4, lines 10-67).

With respect to claim 24, Draper discloses one or more computer-readable media (mass storage devices: col. 7, lines 60-63 and see fig. 13);

a first hierarchical tree structure having multiple nodes associated with a first context (see fig. 6b, the first hierarchical tree structure including nodes: directory and Person);

at least one-second hierarchical tree structure having multiple nodes associated with a second context (see fig. 6B, the second hierarchical tree structure including nodes: Person and its children nodes such as Name Home and Work: see fig. 6b)

and at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which

Art Unit: 2172

attributes can be assigned to goods or services (col. 5, lines 38-55 and col. 6, lines 40-56; the linking between two hierarchical tree structures is the link or edge between Directory and Person, see fig. 6b).

With respect to claims 25-26, Draper discloses a location context and geographical divisions of Earth (see fig. 6B: address, city state).

With respect to claim 37, Draper discloses accessing first and one or more second hierarchical tree structures that are resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being associated with a second context; and traversing multiple nodes of at least one of the tree structures to derive a context, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, said multiple nodes comprising parent and children nodes at least some of the parent nodes and their associated children nodes having IDs that are unique for the associated node (mass storage devices: col. 7, lines 60-63 and see fig. 13; see fig. 6B, see fig. 6b, the first hierarchical tree structure including nodes: directory and Person and the second hierarchical tree structure including nodes: Person and its children nodes such as Name Home and Work; col. 5, lines 38-55 and col. 6, lines 40-56; the linking between two hierarchical tree structures is the link or edge between Directory and Person, see fig. 6b; and traversing the multiple nodes: see fig. 5, col. col. 5, lines 1-12).

With respect to claims 38-39, Draper discloses a location context and geographical divisions of Earth (see fig. 6B: address, city state).

With respect to claim 48, Draper discloses access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure; and traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services said multiple nodes comprising parent and children nodes at least some of the parent nodes and their associated children nodes having IDs that are unique for the associated node (mass storage devices: col. 7, lines 60-63 and see fig. 13; see fig. 6B, see fig. 6b, the first hierarchical tree structure including nodes: directory and Person and the second hierarchical tree structure including nodes: Person and its children nodes such as Name Home and Work; col. 5, lines 38-55 and col. 6, lines 40-56; the linking between two hierarchical tree structures is the link or edge between Directory and Person, see fig. 6b; and traversing the multiple nodes: see fig. 5, col. 5, lines 1-12).

With respect to claim 49, Draper discloses the computing device automatically determines its location context (see fig. 6b, col. 5, lines 38-55).

With respect to claim 54, Draper discloses defining a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity; said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having ids that are unique for the associated node; associating one or more goods or services with one or more of the nodes; and traversing one or more of the multiple nodes to discover a good or service (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the multiple nodes: see fig. 5, col. 5, lines 1-12).

With respect to claim 55-56, Draper discloses location, geographical division of the Earth and traversing enables a current location to be determined (col. 5, lines 38-55 and col. 5, lines 1-14).

With respect to claim 57, Draper discloses define a hierarchical tree structure comprising multiple nodes that each can define a physical or logical entity; said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having ids that are unique for the associated node; associating one or more goods or services with one or more of the nodes; and traversing one or more of the multiple nodes to discover a good or service (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the multiple nodes: see fig. 5, col. 5, lines 1-12).



Art Unit: 2172

With respect to claim 58, Draper discloses receiving input from a source that specifies information pertaining to physical and/or logical entities; processing the information to define a hierarchical tree structure having a context, the tree structure comprising multiple nodes each of which represent a separate physical or logical entity; linking at least one of the multiple nodes to a node of another tree structure having a context and multiple nodes that represent physical and/or logical entities, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services, the tree structures being configured for traversal in a manner that enables context to be derived from one or more of the nodes (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the multiple nodes: see fig. 5, col. 5, lines 1-12; parent and children: col. 4, lines 10-28 and lines 42-67).

With respect to claim 59, Draper discloses location context (see fig. 6b, state, city, address, col. 5, lines 38-55).

With respect to claim 62, Draper discloses one or more computer-readable media; a first hierarchical tree structure having multiple nodes associated with a first context; at least one second hierarchical tree structure having multiple nodes associated with a second context; and at least one node from the at least one second hierarchical tree structure being linked with one node on the first hierarchical tree structure by a link that is configured to enable a complete context to be derived from the first and second contexts, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services; and wherein the nodes of the

Art Unit: 2172

first hierarchical tree structure comprise geographical divisions of the Earth , wherein the first and the at least one second hierarchical tree structures comprises a plurality of attributes, one of which comprising information that pertains to the tree with which the node is associated (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the multiple nodes: see fig. 5, col. col. 5, lines 1-12; parent and children: col. 4, lines 10-28 and lines 42-67; city state are geographical divisions: see fig. 6b).

With respect to claim 63, Draper discloses accessing first and one or more second hierarchical tree structures that are a resident on one or more computer-readable media, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first context, the nodes of the one or more second hierarchical tree structures being associated with a second context; and traversing multiple nodes of at least one of the tree structures to derive a context, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services; wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; and wherein the traversing comprises traversing at least one node on each tree to derive the context; wherein the first and the at least one second hierarchical tree structures comprises a plurality of attributes, one of which comprising information that pertains to the tree with which the node is associated (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the

Art Unit: 2172

multiple nodes: see fig. 5, col. 5, lines 1-12; parent and children: col. 4, lines 10-28 and lines 42-67; city state are geographical divisions: see fig. 6b).

With respect to claim 64, Draper discloses access first and second hierarchical tree structures, each tree structure having multiple nodes, the nodes of the first hierarchical tree structure being associated with a first location context, the nodes of the second hierarchical tree structure being associated with a second location context, at least one node of the a second hierarchical tree structure being linked with a node of the first hierarchical tree structure: and traverse at least one node of each tree structure to derive a location context, at least one node in a traversal path that leads to a root node of the second hierarchical tree structure being linked with a node of the first hierarchical tree structure, individual nodes having unique IDs that can serve as a basis by which attributes can be assigned to goods or services wherein the first and the at least one second hierarchical tree structures comprises a plurality of attributes, one of which comprising information that pertains to the tree with which the node is associated; and wherein the traversing comprises traversing at least one node on each tree to derive the context (see fig. 2B or 6b, each hierarchical tree structure has more than one nodes and the node such as phone, address or work are represented as services node; and traversing the multiple nodes: see fig. 5, col. 5, lines 1-12; parent and children: col. 4, lines 10-28 and lines 42-67; city state are geographical divisions: see fig. 6b).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-19, 27-28, 30-31, 40-43, and 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over 6,581,062 issued to Draper et al. (hereinafter Draper) in view of US Patent No. 5,295,261 issued to Simonetti.

With respect to claims 2-19, Draper discloses a system as discussed in claim 1.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does

Art Unit: 2172

not explicitly indicate one or more network, political or nature entities, ocean, infrastructure entities, time zones, public places, non-physical entities.

However, Simonetti discloses one or more networks; wherein the nodes comprise political or natural entities, wherein the political or natural entities comprises one or more of the following: continents, countries, oceans, states, counties and cities; wherein the nodes comprise infrastructure entities; one or more of the following: postal codes, area codes and time zones; public places and non-physical entities (storing geographical information database: col. 4, lines 6-14; see abstract, col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28); wherein one of the attributes comprises a name attribute; a neutral ground truth name attribute; wherein one of the attributes comprises a geographic attribute; a latitude/longitude attribute; a relative importance index; a contextual parent attribute; a source attribute; a start/end dates attribute; a modification date attribute and a status attribute (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Simonetti so as to obtain geographical information system such as state, city, country (col. 4, lines 10-14). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) and each higher-level node is designed to encompass or contain its

Art Unit: 2172

children nodes and this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claims 28-28 and 30-31, Draper discloses a system as discussed in claim 24.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate physical and/or logical entities, attributes.

However, Simonetti discloses wherein the first and second contexts comprise a location context wherein the nodes of the first hierarchical tree structure comprise geographical divisions of the Earth; wherein the nodes of the at least one second hierarchical tree structure comprise physical and/or logical entities; wherein the first and the at least one second hierarchical tree structures comprise a plurality of attributes, two of which comprising: an identification that is unique to a node; and information that pertains to the tree with which the node is associated ; one or more goods or services associated with one or more of the nodes of the at least one second hierarchical tree structure and wherein the first hierarchical tree structure to comprises a standardized view of the Earth, and the at least one second hierarchical tree structure comprises an organization-specific view of at least a portion of the Earth, the organization-specific

Art Unit: 2172

view comprising a physical/logical entity that links into specific portions of the Earth (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Simonetti so as to obtain geographical information system such as state, city, country (col. 4, lines 10-14). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) and each higher-level node is designed to encompass or contain its children nodes and this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claims 40-43, Draper discloses a system as discussed in claim 37.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate physical and/or logical entities, attributes.

However, Simonetti wherein the traversing derives a location context; wherein the nodes of the first hierarchical tree comprise geographical divisions of the Earth; wherein the nodes of the one or more second hierarchical tree comprise physical and/or logical entities; wherein the traversing comprises traversing at least one node on each tree to derive the context; wherein the context comprises a location and wherein the first and one or more second hierarchical tree structures comprise at least one node pair 14 that is linked (col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Simonetti so as to obtain geographical information system such as state, city, country (col. 4, lines 10-14). This combination would have a system that provides for effective management of data that are inherently multi-dimensional (e.g., geographical, multi-media) and each higher-level node is designed to encompass or contain its children nodes and this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 60, Draper discloses a system as discussed in claim 58.



Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate computing devices. .

However, Simonetti discloses a computing device (computational workload is computed via user query and story in computer storage memory device: col. 4, lines 6-12 and lines 44-56; also see col. 58-67 and col. 2, lines 1-16).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Simonetti so as to obtain geographical information for the nodes (col. 4, lines 6-14). This combination would have a system that provides for effective management of data that are inherently multi-dimensional and each higher-level node is designed to encompass or contain its children nodes and this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

With respect to claim 61, Draper discloses one or more computer-readable media; and a hierarchical tree structure resident on the media and comprising multiple nodes each of which represent geographical divisions of the Earth, individual nodes comprising an entity identification (EID) that is unique to the node, EIDs serving as a basis by which attributes can be assigned to goods or services associated with an

Art Unit: 2172

individual node, said multiple nodes comprising parent and children nodes, at least some of the parent nodes and their associated children nodes having EIDs that are unique for the associated node (mass storage devices: col. 7, lines 60-63 and see fig. 13); locations such as name, home, address, state, zip city: col. 5, lines 38-55 and see fig. 6a and fig. 6b; each node has its own entity such as the node name, its entity is NAME: col. 5, lines 38-55 and col. 6, lines 40-56; and see fig. 2b, entity A has more than one nodes, B, E, G and H, and each node has its own entity identification: col. 4, lines 10-67).

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate one or more network, political or nature entities, ocean, infrastructure entities, time zones, public places, non-physical entities.

However, Simonetti discloses one or more networks; wherein the nodes comprise political or natural entities, wherein the political or natural entities comprises one or more of the following: continents, countries, oceans, states, counties and cities; wherein the nodes comprise infrastructure entities; one or more of the following: postal codes, area codes and time zones; public places and non-physical entities (storing geographical information database: col. 4, lines 6-14; see abstract, col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract, figs. 3(A), 3(B) and 3(C), col. 8, lines 12-35 and col. 9, lines 1-28).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings

Art Unit: 2172

of Simonetti so as to obtain geographical information for the nodes (col. 4, lines 6-14).

This combination would have a system that provides for effective management of data that are inherently multi-dimensional and each higher-level node is designed to encompass or contain its children nodes and this system has a way to improve the searching and retrieving a tree structure (Simonetti - col. 5, lines 20-23) and optimization for search on a plurality of search values without the need to generate and store search table for each search value values (Simonetti - col. 5, lines 28-32) and reduce the amount of required storage area (Simonetti - col. 4, lines 60-64) in the searching in the hierarchical tree structures environment.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate the first and the second hierarchical tree structures comprise a plurality of attributes, one of which comprising information that pertains to the tree wherein the nodes of the first and the at least one second hierarchical tree structures comprise a plurality of attributes, one of which comprising information that pertains to the tree with which the node is associated (the tree structure storing geographical information such as country, state and city: col. 4, lines 6-14, col. 5, lines 10-15 (topological map comprising a plurality of nodes and links representing the navigational field or nodes; and col. 8, lines 20-26; col. 1, lines 60-68; col. 4, lines 6-14 and col. 8, lines 12-26; also see col. 13, lines 27-44; col. 8, lines 12-26; and abstract

Art Unit: 2172

7. Claims 20-23, 29, 32-36, 44-47 and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over 6,581,062 issued to Draper et al. (hereinafter Draper) in view of US Patent No. 6,151,601 issued to Papierniak et al. (hereinafter Papierniak).

With respect to claims 20-23, Draper discloses a system for determining context as discussed in claim 1.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate wherein the tree structure does not include any nodal associations with businesses or services; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a handheld mobile computing device and wherein the computer-readable media is accessible to a mobile computing device via the Internet.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions to achieve their

business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 20-23, Draper discloses a system for determining context as discussed in claim 24.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate wherein the information comprises a universal resource locator (URL); wherein the organization-specific view has no context outside of the organization; wherein the computer-readable media is embodied on a mobile computing device; wherein the computer-readable media is embodied on a desktop device; wherein the computer-readable media is embodied a handheld mobile computing device; wherein the computer-readable media is accessible to a computing device via the Internet.

However, Papierniak discloses URL, wireless/mobile and Internet (col. 12, lines 61-67 and col. 13, lines 1-8; abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61; col. 7, lines 55-67 and col. 8, lines 1-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or

Art Unit: 2172

customer to make intelligence decisions and take timely actions to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 44-47, Draper discloses a method for determining context as discussed in claim 37.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate wherein at least one of the nodes of the one or more second hierarchical tree structures has a good or a service associated with it, and wherein the traversing comprises locating a good or a service associated with a node and consuming the good or service; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing tree structures that are locally available on a mobile computing device; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via a network medium; wherein the accessing of the first and the one or more second hierarchical tree structures comprises accessing at least one of the trees via the Internet.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings

Art Unit: 2172

of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

With respect to claims 50-53, Draper discloses a computer-readable media having computer readable instructions for determining context as discussed in claim 48.

Draper discloses a hierarchical tree structure, which is stored in the mass storage devices is containing location information such as city zip state. Draper does not explicitly indicate wherein the computing device automatically determines its location context; wherein the computing device is a handheld computing device; wherein the computing device is a mobile computing device; wherein the computing device is a desktop device; and wherein the computing device is a handheld computing device that automatically determines its location context.

However, Papierniak discloses business context, wireless/mobile and Internet (abstract, col. 1, lines 10-40, col. 3, lines 56-67, col. 4, lines 1-67, col. 10, lines 8-67 and col. 11, lines 32-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Draper with the teachings of Papierniak so as to have a system for multiple hierarchical tree structures for storing data. This combination would provide a system for designing future products accessible

Art Unit: 2172

via and for web-based application (Papierniak – col. 2, lines 60-65) and for users or customer to make intelligence decisions and take timely actions to achieve their business goals (col. 4, lines 5-15) in the context-aware application computing and ubiquitous computing environment.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



**Contact Information**

9. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527 or via E-Mail: **ANH.LY@USPTO.GOV**. The examiner can be reached on Monday - Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, John Breene, can be reached on (703) 305-9790.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, D.C. 20231

or faxed to: Central Office (703) 872-9306 (Central Official Fax Number)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

ANH LY  
APR. 30<sup>th</sup>, 2004

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER